

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Helmut Steinhilber et al.
Serial No.: 10/734,442
Date Filed: December 12, 2003
Group Art Unit: 3653
Confirmation No.: 9668
Examiner: Joerger, Kaitlin S.
Title: **METHOD AND DEVICE FOR SELECTING
THE SHEETS OF A RECORD CARRIER
FROM A PILE**

MAIL STOP – APPEAL BRIEF - PATENTS
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P.O. Box 1450
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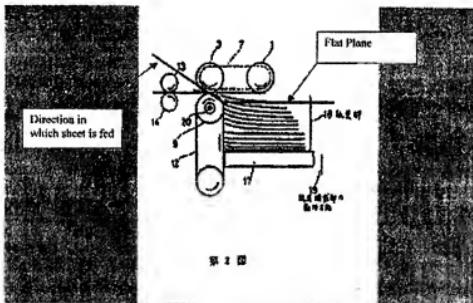
Dear Sir:

REPLY BRIEF

In reply to the Examiner's Answer mailed 11/14/2007, Applicants make the following points: (1) the Examiner's definition of "feeding direction" must be rejected because it applies the direction of the sheet AFTER it has contacted the stop rather than BEFORE it has contacted the stop; and (2) even if the Examiner's definition of "feeding direction" is accepted, then the angle between a flat horizontal plane that the sheets are piled on and the feeding direction is less than 90° because the Examiner has measured the wrong angle.

First, regarding "direction in which the uppermost sheet is fed," it is noted that the Examiner has interpreted the phrase "feeding direction" to mean the direction in which the sheet is moved off of the pile." (Examiner's Answer at 7). The examiner further states that "it is clear that the sheet is moved off of the pile at an upward angle." *Id.* The Examiner further defines the

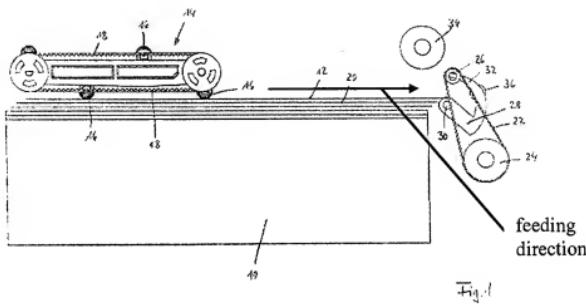
"horizontal direction of movement as the sheet is conveyed by the roller 14" as "the conveyance direction." *Id.* at 7-8. The examiner further supports this position with a graphic reproduced below.



However, Claim 6 recites "the stop can be moved upwards at an impingement angle of *more than 90° in relation to a flat plane and a direction in which the uppermost sheet is fed.*" (Emphasis added). In view of the specification, it is clear that "a direction in which the uppermost sheet is fed" refers to the direction of the sheet BEFORE it is engaged by the stop. With reference to Figure 1, the specification teaches,

On the pile 10 there is a rolling action device 14, which corresponds to the rolling action device described, for instance, in DE 100 16 793 A1. This rolling action device 14 has rolling elements that are built as freely revolvable bearing housed turning rollers 16. These turning rollers 16 are embedded onto an endlessly running tractive device 18. The turning rollers 16 are moved in *the feeding direction by the driven tractive device 18, or in the figure, to the right over the uppermost sheet 12 of the pile 10.*

(Specification at 8:21-9:2) (emphasis added).



(Specification at Figure 1) (notations added).

The continuously running turning rollers 16 push this curvature in front of themselves, whereby *a feeding force is being exercised in direction to the right on the uppermost sheet 12 and in a decreasing degree on each of the following sheets in the pile 10*. In this way, the upper sheets of the pile 10 are fanned out in the form of scales as this can be seen in Figure 1.

(Specification at 8:21-9:2) (emphasis added). The feed direction is horizontally to the right in Figure 1 BEFORE the sheet contacts the stop. The fact that the edge of the paper is lifted during the separation process does not change the defined orientation of the "feed direction." For example, Figure 2 of the present specification illustrates that the top sheet of paper is inclined after it is engaged by the stop.

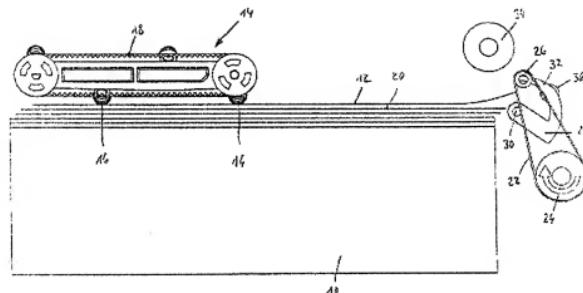
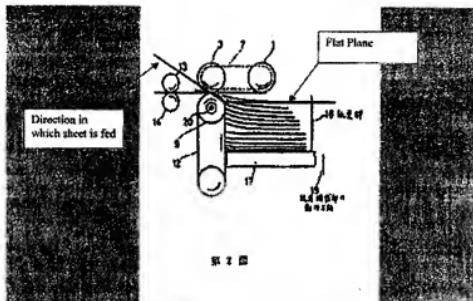


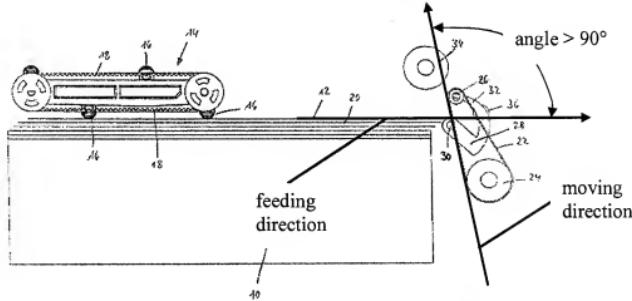
Fig 2

But this fact does not change the defined “feed direction” as being horizontally to the right. Thus, the premise of the rejection, which places the “feed direction” in Figure 2 of Takahiro at an incline, is incorrect in the context of the invention of the present application.

Second, the Examiner has measured the wrong angle. The Examiner argues that “at the top of the belt, as the belt moves over the roller 9, the moving direction of the belt is the same as the feeding direction. Therefore, the impingement angle, defined as the angle between the a [sic] flat plane, the horizontal plane that the sheets are piled on, and a feed direction, is in fact greater than 90° as clearly shown in the figure,” (Examiner’s Answer at 8) reproduced below.



This interpretation takes "flat plane" out of context and completely writes "a direction in which the uppermost sheet is fed" out of the claims. The Examiner has misinterpreted the "direction" of the "flat plane" to be to the *right* in the figure reproduced above. As noted above, it is the Applicants position that the phrase "flat plane and a direction in which the uppermost sheet is fed" must be interpreted as having a direction to the *left* in the figure reproduced above. If "flat plane" is taken separately, then the question becomes which "angle to measure, the acute angle formed with the flat plane on the left or the obtuse angle formed with the flat plane on the right. As noted previously, the directions described in the specification suggest that it should be the acute angle formed with the flat plane on the left in the figure shown above. The relative directions are illustrated with respect to Figure 1 of the specification.



(Specification at Figure 1) (notations added).

Second, even if “flat plane” and “direction in which the uppermost sheet is fed” are interpreted as two separate requirements, the Examiner’s interpretation does not provide an impingement angle of more than 90° in relation to a direction in which the uppermost sheet is fed. Relative to the figure reproduced above, the Examiner has defined the “direction in which the sheet is fed” as inclining upward to the left in the figure. Further, the Examiner states that “the moving direction of the belt is the same as the feeding direction.” (Examiner’s Answer at 8). Thus, at the top of the belt where the belt moves over the roller 9, the Examiner states that the moving direction and the feeding direction are the SAME. Thus, it is impossible for the belt to have an impingement angle of more than 90° in relation to a direction in which the uppermost sheet is fed. To reach the Examiner’s interpretation, the “direction in which the uppermost sheet is fed” must be completely ignored because it does not form an impingement angle greater than 90° with the belt. With reference to the drawing below, the interpretations of “moving direction” are identified. Under the Examiner’s interpretation, the moving direction is the line identified as the “direction in which sheet is fed” and the direction in which the sheet is fed is the SAME line. Under the Applicant’s interpretation, the moving direction is the line identified as “moving direction” and the “direction in which the sheet is fed” is the line identified as “flat plane” pointing to the left side of the figure. Thus, under all combinations of all interpretations, the impingement angle between the moving direction and the direction in which the sheet is fed is always LESS than 90°.

7

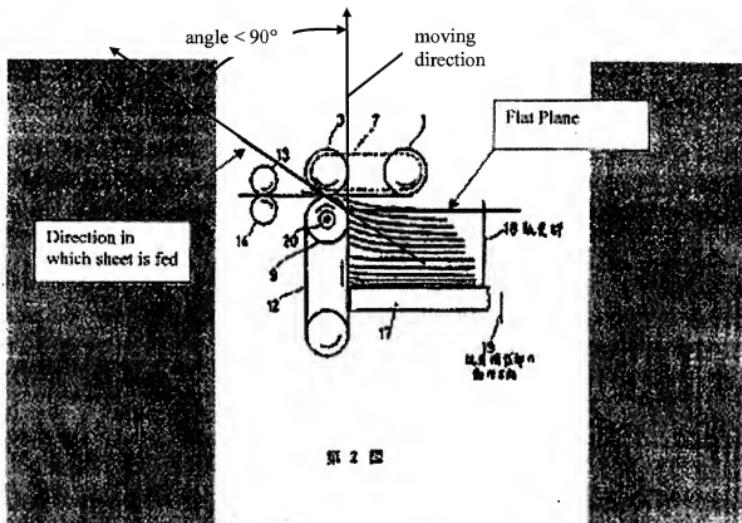


Fig. 2

Therefore, many premises of the rejection fail and the invention as claimed in Claim 6 is patentable in view of Takahiro. The invention of Claims 7-10 is patentable for similar reasons.

Arguments to Rejections under 35 U.S.C. §103

Similar to the discussion above relative to the invention as claimed in Claim 6, this “feed direction” is the horizontal direction to the right as shown in Figure 1 of the specification. Thus, the invention as claimed in Claims 1-3, 5 and 14-17 is patentable in view of Takahiro and U.S. Patent 4,579,329 issued to Walter W. Frost et al. (“Frost”).

Regarding the rejection of Claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over Takahiro, Applicants respectfully traverse and submit the cited art does not render the claimed embodiments of the invention obvious. Claim 1 recites, “subjecting the uppermost sheet of the pile to a rolling action, through which the uppermost sheet is loosened from the next sheet

on the pile and is *moved in the feeding direction*, moving the uppermost sheet with its front edge against a stop, which is moved under an impingement angle of more than 90° in relation to a flat plane and a *direction, in which the uppermost sheet is being fed.*" As noted above, the specification clearly teaches that the feeding direction is horizontally to the right in Figure 1. This holds true even though the leading edge of the sheet is lifted after engagement with the stop as illustrated in Figure 2 of the specification. A premise of the rejection is that the feeding direction is that of the leading edge of the paper after it is lifted by the stop. However, as noted above, that premise is incorrect in view of the clear claim language and the express teaching of the specification. Further, if the feeding direction identified in the office action were taken as correct, a premise with which the Applicants do not agree, then Takahiro fails to teach an impingement angle of more than 90°. Takahiro fails to teach or suggest the invention as claimed in Claim 1. The invention as claimed in Claims 2-3 is patentable for similar reasons.

Regarding the rejection of Claim 5 under 35 U.S.C. §103(a) as being unpatentable over Takahiro in view of Frost, Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, does not render the claimed embodiment of the invention obvious. For the reasons noted herein, the invention as claimed in Claim 5 is patentable in view of Takahiro and Frost.

Regarding the rejection of Claims 14-17 under 35 U.S.C. §103(a) as being unpatentable over Takahiro in view of Frost, Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, does not render the claimed embodiment of the invention obvious. For the reasons noted herein, the invention as claimed in Claims 14-16 is patentable in view of Takahiro and Frost. Claim 17 recites "a rolling action device that lies on the uppermost sheet of the pile and exerts a rolling action on the uppermost sheet in a feeding direction." Similar to the discussion above relative to the invention as claimed in Claims 1 and 6, this "feed direction" is the horizontal direction to the right as shown in Figure 1 of the specification. Thus, the invention as claimed in Claim 17 is patentable in view of Takahiro and Frost.

SUMMARY

Applicants believe that the prior art cited does not render the independent claims obvious. Applicants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claim to which they refer, respectively. Thus, Applicants respectfully request reconsideration and allowance of the dependent Claims.

Applicants believe no fees are due, however, the Commissioner is hereby authorized to charge any fees necessary, or credit any overpayment, to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P. (31625)

Date: 1/14/08

By:

William Beard
R. William Beard, Jr.
Patent Bar No. 39,903
1500 San Jacinto Center
98 San Jacinto Blvd.
Austin, Texas 78701-4287
Telephone: 512.322.2690
Facsimile: 512.322.8383
ATTORNEY FOR APPELLANTS